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THE GEOGRAPHICAL DISTRIBUTION OF CANCER OF THE LIP.

By DR. WILHELM STRICKER.

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* * * * * DR. LOUIS LORTET, of Oullins in the Department of the Rhone, in his *Essai monographique sur le prétendu cancroïde labial* (Paris, 1861, 4to), has made use of his sources of information not only in an unusually complete manner, but has collected also, for a purpose which we principally wish to communicate, valuable information in writing, which, however, is not sufficient for the farther investigation of several points. This *Archiv* has proved itself so excellent an instrument in the investigations of the Editor upon *Leprosy*, that we do not hesitate in this way to bring the wish of the author before German Surgeons. His questions relate principally to: 1st, the relative frequency; 2d, the number of operations compared with the whole number of those operated upon; 3d, the frequency of the disease in relation to an elevated or low residence; 4th, its frequency in connection with occupation; 5th, with nationality; 6th, with sex; 7th, with the period of life; 8th, with the character of the diet. Answers to these questions the author desires should be sent to his father, Dr. P. Lortet, Lyon, Quai Fulchiron 24.

We now turn to the work of L. Lortet.

Ætiology.

Predisposing Causes.

A. *Sex.* For a long time it has been observed, that cancer of the lip is a disease which particularly attacks the male sex. According to the various localities, women form $\frac{1}{6}$ to $\frac{1}{3}$ of those affected, as the following list shows.

Lebert (Paris) 15 males, 3 females. (*Traite des mal. cancér.* Paris, 1851.)

Gault 20 M., 1 F.

Bertin (Montpellier) 24 M., 3 F.

Melzer (Laibach) 127 M., 15 F. (*Jenaische Annalen*, 1850. II. 480.)

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Meurteaux (Paris) 69 M., 10 F. (Thèse du Cancroïde. Paris, 1860.)

Bruns (Tübingen) 50 M., 5 F. (Handb. der Prakt. Chir. 1859. H. 535.)

Barrier (Gaz. Méd. de Lyon, 1852, u. Schriftl. Mitthlg.) had between the years 1850 and 1855 observed 71 cases, of which 62 were males and 9 females, 59 affected the under and 12 the upper lip, of which latter number 6 were males and 6 females.

Of the 181 cases collected by Desgranges (Gaz. Hebdomadaire, 1854) 158 were males, 23 females; 153 affected the under, 22 the upper lip and 6 the corner of the mouth.

The total of all these numbers gives to 527 men 69 women, or a proportion of $7\frac{6}{10}$ to 1.

B. Age. Among 252 cases only one was below the age of 20 years, a girl 16 years old. It is only after the 30th year that the disease increases in frequency and continually augments up to the greatest age, if we compare the number of cases with the number of those living at certain periods of life. Of course the absolute number of cases of cancer of the lip diminishes at a great age, since in the 60th year there is living only the 5th, in the 70th the 8th, in the 75th the 12th, in the 85th the 93d part of those who are born, and moreover very aged men seldom submit to an operation.

Lebert, among 17 cases of the disease, found 2 from 30–35, 1 from 35–40, 2 from 40–45, 7 from 45–50, 2 from 50–55, 3 from 60–65 years old.

The first beginning of the disease Bruns in his 55 cases found was noticed by 2 between 20 and 30, by 9 between 30 and 40, by 11 between 40 and 50, by 13 between 50 and 60, by 15 between 60 and 70, and by 5 between 70 and 80 years old.

Among the 260 cases collected at the Hôtel Dieu in Lyon, 13 occurred at the 56th, 12 at the 50th, 11 at the 42d, 58th, 59th, 60th and 62d, 10 at the 42d year, and so forth, which compared with the single cases of 1 at 16, 1 at 29 and 32, 2 at 33 years old, demonstrates satisfactorily its predominance at the advanced periods of life.

C. Temperament, Occupation. Dr. Lortet thinks himself authorized in believing that the sanguine temperament predisposes to this disease. Most of those affected with it, whom he has seen, were blonds, of a rosy complexion, with strongly developed capillaries. As to the greater proportion of country people affected, Lortet agrees with Bruns. Among the 181 cases collected by himself, Lortet found 107 from the country, 12 weavers, 4 each of carpenters, stonemasons, shoemakers and proprietors, 2 each of waggoners, woodsawyers and servants, and 19 without definite occupation. This preponderating number of peasants by no means indicates an excess of rural population in the departments to which the patients belonged, for out of a total population of 3,924,000, only 1,095,000

were peasants, or somewhat more than $\frac{1}{4}$, whereas the number of peasants thus affected amounts to more than $\frac{3}{4}$ ths.

D. *Clinical and Geographical Relations; Heredity.* Hurteaux has collected 11 cases in which the disease was inherited, to which Lortet thinks he may add 4 or 5 more, although he considers this number far too small to warrant any conclusions whatever.

More numerous, although still not sufficient also, is the material for the determination of the geographical distribution of the disease.

In the neighborhood of Lyon, among 3217 "bloody" operations performed in the period from 1850-1860, 181 cases of cancer of the lip occurred, which were distributed among the Departments as follows: Loire 29, Upper Loire 20, Rhone 25, Isère 14, Ain 13, Drome 11, Saone and Loire 10, Jura 9, and so on; a division to which Lortet himself attaches little importance, and which, in fact, is of no value without a knowledge of the contingent furnished by each district to the aggregate of the patients in Lyon.

In Sweden, according to the report of the chief surgeon of the great hospital at Stockholm, Rosander, in 1860, the disease appears to be very rare. "From 1850 to 1859, out of 2200 operations there were 17 performed for 'cancer of the face' upon 16 persons, 12 males and 4 females, all peasants from the neighborhood of the city. Upon the mountains the disease appears to be still less frequent than in the plains. The other hospitals in Sweden are small, so that the whole number of operations in them would scarcely exceed those performed in Stockholm."

There occurs, therefore, in Lyon 1 operation for cancer of the lip in 17, in Stockholm 1 in 137, or allowing for cases of "cancer of the face" upon other portions than the lips, 1 in about 200 operations.

According to a letter from Dr. Ludwig Benjamin, in Hamburg there were only two cases of the disease in the period of 1854-1857, 1 in 1854 and 1 in 1856.

In Prussia, also, the affection appears to be very rare. According to Melzer, on the other hand, there occurred in the hospital at Laibach in 62 years among 27,800 patients, 453 cases of cancer, 142 of which were of the lips.

As to Switzerland, communications were received from Prof. Vogt, of Bern, Dr. Socin and Prof. Jung, in Basle, in 1860, from which it appears that the disease is quite frequent about Bern and Zurich, but rare in Basle, where in 38 years only 3 cases were observed in the surgical clinic.

According to a letter received from Bertin (1860), there were 895 operations performed at Montpellier during the period of 1851-1857, 33 of which were for cancer of the lip. Berrut writes, that in the year 1857 1607 cases were treated in the surgical department at Marseilles, 3 for this disease only, all of the lower lip.

Dr. Lindermayer, physician in Athens since the Grecian revolu-

tion, had observed only 2 cases up to 1860, and the physicians of the country had seen it very seldom.

Dr. Ph. Faure, who has travelled many years in Asia Minor, Syria, Palestine, Mesopotamia, Egypt and Nubia, found this disease, like cancerous affections in general, almost unknown in these regions.

Dr. Heinrich Barth also, the celebrated African traveller, states, in his written communications to the author, that, although consulted by innumerable patients, he saw but one case of cancer in a man, but none in a woman. In the tribe of Beni-Meluk, however, upon the Niger, several days journey east from Timbuctoo, which, indeed, is not purely African, but crossed with Barbary and Arabia, he met with an affection of the skin, which bore some resemblance to cancer of the lip.

Livingston and Lautre have never met with the disease among the nations of South Africa. The latter, who spent many years among the Bassutos, a community north of Cape Colony, did not see a single case of cancer of the face, which is by no means uncommon among the whites of Cape Colony.

From the facts presented, although imperfect, it appears, then, that cancer of the lip is of most frequent occurrence in Central Europe, which, to be sure, is also the best known region. As to the various agents accused of producing it—

Tobacco stands in the first rank, and particularly the smoking from a short pipe, the pressure of the tube of which upon the under lip was considered, as far back as 1795, by Sömmering, as the cause of cancer of the lip. Rigal and Bonnet believe it to be caused by the irritation which the teeth, injured by the stem, exercise upon the lips. Rechnitz observes that cancer of the lip is so generally prevalent in Hungary on account of a very strong tobacco, which, being either chewed or smoked from a short pipe, covers the lips with an acrid juice. Günter states, that nearly all those he operated upon were passionately fond of smoking, and that he often found them the second or third day secretly smoking behind the bed-curtains. Bouisson mentions 49 cases of the disease, all of which were observed in smokers. On the other hand, Bardeleben, in Greifswald, has operated upon many patients who never smoked; also Fleury, in Clermont. Bruns found among 55 operated upon only 10 great smokers, and one of these, in whom the seat of the disease was at the left corner of the mouth, had always held the pipe in the right corner. The experience of Hurteaux was the same; for of the 9 cases which he observed, 4 had never smoked, and among the 5 smokers in 2 only did the disease affect that portion where the pipe generally rested. Lortet, from his own experience in Hôtel Dieu at Lyon, could perceive no evidence of the influence of smoking. With regard to the statement of Melzer, whose accusation of smoking without satisfactory proof has been adopted in various surgical works as an universally accepted fact, Bruns has demonstrated that the

pretended frequency of the disease in Krain is in no way borne out by the figures, which go to show rather that it is twice as frequent in the vicinity of Tübingen as in Krain. Lemarchand, in Finistère, where nearly all the women smoke short pipes, has seen, according to Hurteaux, nearly 100 cases of cancer of the lip in men, and not a single one in a woman. We have seen above, that in the Orient, where nearly everybody smokes, the disease does not occur, and it will be necessary to collect still more geographical and statistical facts before a definite judgment as to its ætiological relations can be formed. The material which I have obtained from the Reports of the Imperial General Hospital of Vienna for the years 1857, 1858 and 1860, is somewhat deficient, but demonstrates, nevertheless, the preference of the disease for the under lip and its preponderance in the male sex, and gives the relative number of the various forms of epithelial cancer in the whole number of patients.

Year.	Whole No. of patients.	Whole No. of operations.	No. of cases of epithelial cancer.	Cases of cancer of the lip.			Seat of the disease.			No. of operations for cancer of the lip.
				Total.	M.	F.	Lower lip.	Upper lip.	Both.	
1857.	24,943 (15,699 M., 9,244 F.)	355	31 (24 M., 7 F.)	12	12	—	11	—	1	5
1858.	25,606 (16,268 M., 9,338 F.)	399	57 (48 M., 9 F.)	14	13	1	12	1	1	9
1860.	21,557 (13,622 M., 7,935 F.)	325	29 (18 M., 11 F.)	15	—	—	10	5	—	7

PRACTICAL OBSERVATIONS ON, AND THE TREATMENT OF DIPHTHERIA, WITH ILLUSTRATIVE CASES.

By E. N. CHAPMAN, M.D., PROF. OF THERAPEUTICS, MATERIA MEDICA, &c.

[Communicated for the Boston Medical and Surgical Journal.—Continued from page 75.]

CASE XXXVIII.—Mrs. S., an English lady, 48 years of age, the mother of five children, enjoyed good health until one of her pregnancies, twenty years since, when she was attacked with inflammation of the bowels, which resulted in the premature birth of a dead child at the eighth month. Her last two children reached the full time, but were stillborn, as she thought, from the length and severity of the labor. Her illness, greatly aggravated by these two confinements, the last of which was nine years since, increased in severity; until, eventually, her sufferings became so great, that for long periods at a time she was bed-ridden, and obliged habitually, for five years, to take laudanum to quell her pains.

Her symptoms, from first to last, presented little variation, except in their severity. These were an obstinate constipation, tenderness, hardness and distension of the bowels, great soreness, and a feeling

of constriction in the rectum, which was increased by slight movements, and a sense of dragging, forcing downward and tension, extending from the back, over the hips and down the outlet of the pelvis. In the first stage of the disease her passages often contained a jelly-like substance, that was frequently stained with blood; and, uniformly, she was obliged to rely on cathartics or injections to relieve her bowels. The fæces were either scybalous, flat like a piece of tape, or in round, small rolls, from the size of a quill to that of the little finger.

She was under medical treatment in England for two years, without benefit. At this time, moving to New York, she became much worse; and all of her distressing symptoms reached their height. These were pronounced to be due to ulceration of the os uteri, by a physician of note in that city, who had her under treatment for two years and four months. From the obstinacy of the case, another practitioner was called in counsel; when, from the failure of gentler means, it was determined to resort to the hot iron. After its employment for a lengthened period, the uterine disease was stated to be nearly cured, only requiring one or two more applications; although her symptoms remained unchanged, and there was no relief from her sufferings. Accidentally observing a hollow, tube-like substance in one of her passages, she showed it to her physicians; who, on examination by the microscope, told her that it was like the membrane formed in croup. Upon this discovery, uterine applications were discontinued, and, for the first time, attention directed to the bowels; but, as the lady had lost confidence in her medical advisers, their services were dispensed with, and another physician called in. He attended her for a year, and gave a variety of drugs, without much relief following, excepting from injections of the nitrate of silver. By their use the membrane would come away, and transient comfort be attained, that continued until another was formed. This membrane was sometimes in shreds and filaments, resembling long, slender worms, sometimes broken up into a great number of pieces, sometimes rolled up in a ball, and sometimes in hollow tubes—a cast of the intestine—frequently twelve inches in length.

She now visited England, and, by the voyage, was cured of this disease. During her stay there for four months, and for the first six months after her return, she remained well, and was consequently free of those symptoms that had hitherto followed her; but at this time—three years since—her disease returned as of old. This lady sent for me two years ago last June, not that she wished to undergo a course of medication; as, in her language, *everything had been done that could be done*, and a cure in her case was simply impossible; but for the purpose of getting directions for the use of the caustic, the formula for which she had lost. She consented, however, by a promise on my part not to aggravate her condition by the trial

of harsh means, to take, first a prescription of the gum turpentine, and then one of the sulphate of copper. With both medicines a small portion of rhubarb was directed at bed-time. These remedies were of no benefit; but an injection of lunar caustic—gr. ij. to ʒ i. of water—that was used whenever her distress was greatest, gave a measure of relief, provided the membrane came away, until another was formed. A specimen of this membrane, a tube three quarters of an inch in diameter and ten inches in length, I had an opportunity of seeing.

On repeatedly and carefully investigating her history, the fact was elicited that her medical attendants, throughout her illness, had entertained the opinion that her disease—uterine or intestinal—was inflammatory, and demanded for its cure antiphlogistics and low diet. Consequently, she had been confined within doors, much of the time in the recumbent posture, limited to light food, mostly vegetable, and directed to avoid alcoholic or other stimulants. This lowering regimen, only adapted for acute diseases, had been rigidly enforced; sufficient of itself, in so long a period, to break up the strongest constitution, since the animal frame cannot maintain its integrity unless all the elements of nutrition are supplied to the blood. Appreciating this truth as well as another—the frequent cure of chronic inflammation by stimulation—I resolved to bring the patient back to a diet—animal and vegetable—of the most nourishing character. Whilst thus supplying the proper materials of nutrition, I strove to aid digestion and assimilation by exercise in the open air, and, especially, by the use of an alcoholic stimulant. By this means I hoped to increase the crisis of the blood and the tonicity of the capillaries; when possibly the natural powers, thus invigorated, might surmount the local disease. It was extremely difficult to overcome the prejudices of the patient or dispel from her mind the terrible significance of the word, inflammation, which had been sounded in her ears for many long years—a waking horror by day, and a night-mare by night—but, eventually, on reflecting that she could be scarcely more miserable, she resolved to give this plan of treatment a fair trial. She was directed to take four tablespoonsful of brandy daily, to use the nitrate of silver injections whenever the local trouble was insupportable, and to follow a diet and cultivate habits indicated above. Disliking the brandy, she substituted Bourbon whiskey, of which she took a wineglassful during the evening. The stimulant, used in this way, had its full excitant effect, and should, according to old theories, have lashed the inflammation into a high grade of activity. Yet, strange as it may seem, the condition of the bowels rapidly improved; so much, that in a few days the injections were dispensed with and the whiskey was continued alone. Under its use her symptoms became gradually less severe; and the membrane, only occasionally appearing in shreds, finally disappeared in four months, when this peculiar condition of the bowels was seemingly overcome. The

lady continued the whiskey for a month longer, during which time she constantly gained in strength and flesh; and now, supposing herself cured, she resolved to break up the habit of whiskey-drinking, as she did some years before that of taking laudanum, and discontinued the stimulant altogether. Two months subsequently, having relighted a bronchitis, to which in a chronic form she had long been subjected, she sent for me again; when I found the fauces congested and coated with the diphtheritic membrane. A table-spoonful of whiskey was given every second hour, which, without creating any noticeable stimulation, caused the membrane to disappear in six days. What was singular, on the fourth day of this attack, the membrane again appeared in the stools, and continued to be formed for a week. The cure was rapid under the use of the stimulant, and continued for six months, at the end of which time a few shred-like pieces of membrane showed themselves again during a fresh accession of bronchial inflammation. This relapse, notwithstanding the bronchitis, which in the first instance had been relieved as her strength improved, was promptly overcome by a return to the stimulant, which she had again omitted for a period of six weeks.

At the present time this lady is free from any abdominal symptoms, or any constriction or sense of irritation in the lower bowel; has natural passages, which contain neither mucus, jelly-like matter, or membrane; has little cough or expectoration, and has improved in blood and flesh, having gained more than twenty pounds. This improvement has been constant since the use of the stimulant, and only interrupted by its discontinuance. Probably, from the long duration of the disease, this treatment will have to be followed for one or two years before Nature will be diverted from its unnatural channels and a normal nutrition established.

[To be continued.]

ON THE USE AND DOSE OF BISMUTH.

[DR. ROBERT DRUITT contributes the following to the *London Medical Times and Gazette*.—EDS.]

Questions have arisen of late as to the dose of bismuth, and as to the fact that it is usually contaminated with arsenic. It is desirable, therefore, that the experience of such practitioners as use it largely should be put on record.

The trisnitrate of bismuth should be a powder so fine as not to occasion any grittiness when rubbed between the finger and thumb. It is wonderfully soothing to any excoriated or blistered surface of skin. Mixed with glycerine into a thick paint, it is a capital thing in certain ulcerations of the mouth. It is inestimable in irritable dyspepsia, gastralgia, and suspected ulcer of the stomach. If I am

asked—why is bismuth usually given with soda, and how can it be proved that the good effects do not proceed from the soda only?—I reply, that people like the *taste* of bismuth. Patients can readily distinguish between bismuth, chalk, magnesia, and calomel, when put on the tongue; and it has a distinguishable and agreeable taste, which is *primâ facie* evidence in its favor. Again, patients take it of their own accord in large quantities, and find from it, when combined with a little soda, soothing effects which no dose of any alkali will produce alone.

But, then, the dose? I have heard of practitioners giving it in doses of two or three grains in pills. I have also read in books that it is a poison. If so, I cannot say at what dose its poisonous effects begin. It is a medicine which may be given with a purpose, and in doses large enough to fulfil that purpose; and I am pretty certain, from the vast quantities of it that I have prescribed within the last fifteen years, for patients in various parts of the world, that, if poisonous symptoms ever followed, I must have heard of them.

In a case, this year, of obscure disorder of the bowels, in which there came on an attack of inflammation of the cœcum, I believed that the end of the small intestine was ulcerated, and determined so to give bismuth, that the diseased part should, if possible, be protected by it. The patient began with thirty grains every four hours; and, after a day or two, forty grains twice daily. I know that she was supplied with 480 grains from the chemists in eight days, and took this quantity in nine or ten days, slackening the doses as she became better. The effect of the remedy was markedly beneficial.

If, then, bismuth contain arsenic, the latter is so sheathed or combined as not to produce any irritation of the stomach. But it is well enough known that arsenic may be given in immense quantities with no such irritation, and with great benefit. And what is the test? The patients take it of their own will and pleasure, without asking a fresh medical opinion. A patient told me yesterday, that he had been taking fifteen minims twice a day of that liq. arsen. chloridi (for our knowledge of which we are indebted to Mr. T. Hunt) for months and months at a time during the last three years. He takes it because he feels better, and never feels any harm, and this is the only solid evidence of the good effects of any remedy.

It is always convenient to have a formula, and the following one has been liked so much by my professional friends that I enclose it:—*Pulvis Bismuthi Compositus*, 24 Doses.—℞. Bismuthi trisnitratis, pulv. acaciæ, aa gr. 480; sodæ bicarb., gr. 240; zingiberis, gr. 120 (vel camphoræ pulv., gr. 24); sacchari albi, gr. 120, fiat pulvis. It should be kept in a well-corked bottle, and the patient may use it in twenty-four doses; each to be smoothly stirred in water, with one teaspoonful of brandy.

Reports of Medical Societies.

EXTRACTS FROM THE RECORDS OF THE BOSTON SOCIETY FOR MEDICAL IMPROVEMENT. BY FRANCIS MINOT, M.D., SECRETARY.

JAN. 26th.—*Tumor of the Thyroid Gland.*—Dr. BOWDITCH reported the following case.

A gentleman, 64 years old, a farmer by occupation, stoutly built, had had hoarseness, with feeling of stricture about the throat, since February, 1862, and these symptoms had gradually increased. In July he had stridulous breathing, and a tumor began to show itself in the region of the thyroid gland, which of late had rapidly increased. When Dr. Bowditch saw the patient, the tumor was of the size of the fist, and was attached to the side of the trachea, tender at one spot, but generally of a scirrhus hardness. Its point of commencement could not be ascertained. There was orthopnea, some difficulty in swallowing, no cough, but copious expectoration of frothy sputa, wheezing and slight hoarseness. Pulse 108, and small. Digestion good. The patient walked about, and went out. Diagnosis, malignant disease. Death occurred rather suddenly, eight days after Dr. B. saw the patient.

Dr. ELLIS showed the specimen. The tumor was about as large as the fist, and extended from the thyroid cartilage downward to a point below the clavicles. It measured about four inches transversely. The extreme portion of the right lobe was nearly healthy, the transition to the diseased character being gradual. The trachea was pushed to one side, and its cavity was encroached upon. The blood in the internal jugular vein of the left side was coagulated for a length corresponding to the extent of the disease. The microscope showed the large cells, with large nuclei and nucleoli, so often found in malignant growths.

FEB. 9th.—*Gun-shot Wound of the Chest.*—Dr. ELLIS showed the specimen, which came from a man who had been shot in an affray, and who died at the Hospital, under the care of Dr. CABOT.

The patient, while intoxicated, was shot by a man with whom he was having some altercation. The ball was fired from a small pistol, the assailant standing, at the time, within a few feet, and a little to one side. It entered the right breast, about the junction of the third rib with its cartilage, and having passed into the cavity of the chest, could not be traced. The patient was brought to the hospital within a couple of hours of the time of injury. A probe entered the wound at a very acute angle, passing inward towards the median line, and slightly backward. On coughing, bubbles of air came from the wound. Percussion gave no evidence of effusion into the chest.

The patient lived three days after his entrance into the hospital. The morning of his death, being delirious, he succeeded in rising and walking some little distance, when he fell, and on being placed in bed, almost immediately expired.

The bullet entered the anterior mediastinum, at the edge of the sternum, below the third rib, passed through the pericardium diagonally downwards, in front of the great vessels, ruptured the pleura of the left lung, near the point of exit of one of the large pulmonary veins, and was found loose in the left pleural cavity. The latter contained three pints of blood and serum, with a large amount of soft, red, recent coagulum. The right cavity contained about a pint of the same. The

pleural surfaces of both lungs, anteriorly, were attached to the external surface of the pericardium by extremely thin, recent false membranes. A part of the lower lobe of the left lung was so much contused that it did not crepitate. The tissue near the ruptured pleura was infiltrated with blood, and a branch of one of the great pulmonary veins had apparently been perforated near the heart. The pericardium contained a quantity of blood, serum, and a large recent coagulum. The latter, and the pericardial surface generally, were covered with a soft, reddish-white, reticulated membrane. Over the great vessels, the surfaces were united by moderately firm, but recent false membrane.

Other organs normal.

FEB. 9th.—Gun-shot Wound of the Pelvis; Ball extracted from the Rectum.—Dr. CABOT reported the following case.

A soldier received a wound at the battle of Antietam, Sept. 17th, 1862, the ball entering the left buttock, on a line parallel with the trochanter major, and about two inches behind it, and lodging in the pelvis. Since the receipt of the wound he suffered severe pain in the pelvis, knee-joint and small of the back. The patient was always convinced, from his own sensations, that the ball was situated in the rectum, some distance from the anus, where, in fact, it was discovered by a surgeon in Philadelphia, who refused, however, to remove it, saying that the attempt would be dangerous.

The patient being etherized, a thorough examination of the wound was made with a probe, and with an instrument tipped with porcelain, but the ball could not be detected. The finger was then passed into the rectum, and the ball was felt lying beneath the mucous membrane. The membrane was ruptured with the finger, and the ball removed with the forceps. The patient did well.

FEB. 9th.—Ovarian Disease; 576 pounds, by weight, of gelatinous substance removed in about 26 months and by 33appings.—The case occurred in the practice of Dr. Samuel Gregg, of this city; the operations were performed by Dr. I. T. Talbot, and the following history of the case, which was reported by him, was read by Dr. JACKSON.

Mrs. B., aged 68, the mother of three children, the youngest 41 years old, had been a widow more than forty years. She had an older sister, now living, who has had sixteen living children, at single births, the last after she was fifty years old. This sister suffers with some dropsical effusion in the chest. Another sister had twelve children, and died of dropsy (so called) after being tapped twice.

Mrs. B. was never very strong, and suffered severely with dysmenorrhœa till the cessation of the menses, which occurred in her 55th year. She was of a thin, spare habit, pale and rather sallow complexion, nervous temperament, and accustomed to much active exercise. For many years there had been a peculiarity in the alvine evacuations, they recurring five or six times in a single night, and not again for five or six days.

In June, 1860, she complained of severe pain in the hepatic region, with feeling of distension, which was not apparent. She complained of some oppression of the chest and dyspnœa, with loss of appetite, coated tongue, and a general feeling of *malaise*. Soon after this there was weakness of the abdomen, with a trembling, shaking sensation, as she said, as if it contained jelly, but without any increase in size. In August, the abdomen was found enlarged, and a tumor, movable

and quite firm, was perceptible in the left hypogastrium. Oct. 14th, the abdomen had very much increased in size, and was becoming burdensome from the weight. Nov. 20th, the distension was very great, and presented the following appearances: The surface was somewhat irregularly rounded and knobbed, smooth and glistening; the superficial veins much enlarged and very perceptible. A distinct wave of fluctuation was felt by percussion on any part of the abdomen. By a digital examination the uterus was found to be very high in the pelvis, and the os uteri pointing backwards. Her strength had been failing rapidly; she was unable to move herself or turn in bed. Her countenance was pale, and wore a distressed, agonized look. She had extreme dyspnoea, with violent palpitation, especially in a recumbent position. She had complete anorexia, with some thirst, a slightly coated tongue, and unpleasant taste. She passed but little urine, rarely more than a gill in twenty-four hours, and the bowels only moved with an enema. Under such circumstances it was deemed best to perform paracentesis. A medium-sized trocar was used, but on withdrawing it no fluid flowed through the canula. On introducing a director, a thick gelatinous substance was found adherent to it, of about the consistence of calf's-foot jelly. A common India-rubber syringe was then attached to the canula, for the purpose of withdrawing some of this substance, but without effect. Nov. 23d, the operation was repeated, and a pump attached to the canula. After great effort about four pounds of this gelatinous substance were removed. This seemed to be in quite small cysts, and after one was emptied of its contents by means of a trocar, another could be punctured and entered. The operation was quite tedious, but afforded considerable relief to the patient. Nov. 30th, by means of a better arranged apparatus, seven pounds of the same substance were removed, with very marked relief. From this time her health improved, her appetite increased, she could move more easily, and her spirits were better. The operation was repeated at intervals of three, four, five, six and five weeks, removing twelve, fifteen, eighteen, twenty and nineteen pounds. After this, the operation was performed regularly about once in four weeks, and still later every three weeks, and about twenty pounds removed. At one time, after an interval of five weeks, twenty-four and a half pounds were removed. The material had sometimes a whitish appearance, and occasionally there was a considerable mixture of blood.

Her health continued tolerably good, although she suffered dyspnoea and distress in proportion to the time which elapsed after an operation. The operation was performed thirty-three times, and 576 pounds removed in about twenty-six months. The last operation was performed on January 8th, 1863; and her health, which for two months had been gradually failing, became rapidly worse. Two weeks afterwards there was a profuse discharge through an opening by ulceration, about two inches above the navel, and, on the 29th of January, she died.

On dissection, the abdomen was found distended by a cyst, of which the parietes were generally very thin, though in some parts quite thick, everywhere adherent, and containing sixteen pounds of the same kind of material that had been so often drawn off during life. The lower part of the abdomen was occupied by a mass of disease, considerably larger than a man's head, and consisting of a gelatinous substance, contained

in and traversed by thin whitish firm cysts and septa; no one cyst being distinctly traceable to any considerable extent. A small amount of whitish, opaque material was found, and which would probably prove to be more or less fatty, under the microscope; and, excepting this, there was nothing but the gelatinous, the color varying somewhat, though generally citrine. The principal disease being in the left ovary, the right was also similarly affected, but the tumor that it formed would not have been larger than the head of a new-born child. The uterus and bladder were healthy, as were the other organs, excepting the liver, which was affected with fatty degeneration; the intestines had everywhere, externally, a dark bluish-gray color, and the diaphragm was pushed upwards so as to encroach considerably upon the organs of the thorax; the ureters, also, were obstructed by the pressure of the tumor, and were considerably distended.

Dr. Jackson said that he had had an opportunity, by the kindness of Dr. Talbot, to examine the tumor after its removal from the body, and he did not remember to have seen, before, an encysted ovary in which the contents were entirely gelatiniform. If it were not for the large cavity that had been so repeatedly punctured, he thought that a malignant colloid affection might be suspected.

EXTRACTS FROM THE RECORDS OF THE BERKSHIRE DISTRICT MEDICAL SOCIETY.
BY FRANK A. CADY, M.D., SECRETARY.

(MONTHLY MEETING, January 28th, 1863.—Continued.)—Dr. H. H. CHILDS spoke of the administration of ether in whooping cough, and believed that it not only relieved the paroxysms, but shortened the duration of the disease. Dr. Cady had administered it often, but had been unable to obtain any other benefit than that of relieving the paroxysms.

Dr. CADY reported a case of supposed fibrous tumor of the uterus, complicated with ascites. The patient was about 40 years of age, unmarried. The first evidence of any disease in the uterus appeared about two years since. A sense of weight in the pelvis, with occasional sharp pains in the region of the uterus, general fulness of the lower part of the abdomen, and a tumor about the size of a cricket-ball, and oval in shape, just about the pubis, were the first symptoms noticed. The general distension of the abdomen increased. A fortnight later, the ascitic effusion had become so abundant that the tumor could not be defined. In ten days more, the abdomen had become so much distended that respiration became rapid and difficult. Paracentesis was performed, and forty-three pounds of fluid withdrawn. The withdrawal of the fluid gave great relief for a time. The tumor continued to increase in size. The ascitic effusion, in four weeks, returned in greater quantity than before, requiring the operation to be performed again. This operation had been repeated, at various intervals, to the present time—nine times in all; the last occurring a week since, when seventy-three pounds of fluid were withdrawn. The tumor, after the last tapping, was easily defined, and owing to the relaxed condition of the walls of the abdomen after the removal of the fluid, its size could be easily ascertained. It occupied the pelvis, rising a little above the umbilicus, was about twelve inches in its transverse, and from seven to eight inches in its antero-posterior diameter. The vertical extent

could not, with the same accuracy, be determined. The cavity of the uterus was much elongated—the sound, without obstruction, being introduced $5\frac{1}{2}$ inches from the os. The patient had not suffered much from pain. Her distress had been chiefly from the weight of the tumor and the distension of the abdomen, with the ascitic effusion; and although somewhat emaciated, her appetite remained good, and her digestion not greatly impaired. She menstruated regularly for the first six months after the tumor was discovered, irregularly for six months more; but for the past year, had not menstruated at all.

Dr. HOLMES reported a case of *placenta prævia*. When he was called, the woman was pulseless, from the loss of blood. Both mother and child were lost.

Dr. CADY reported a case of an hydrocephalic fœtus, with the following history. Mrs. C., of S—, eight and a half months advanced in second pregnancy, was thrown from her carriage with some violence, upon the frozen ground. The membranes were ruptured at the time of the accident. Occasional labor pains came on, the evening following, and continued for twelve days, when they became regular, and recurred with great intensity for six days, at the expiration of which time Dr. C. was called. He found, on examination, a cephalic presentation, the scalp of the fœtus separating the vulva during each pain, and receding in the intervals of repose. He learned from the physician in charge, that he had been in attendance five and a half days, and that, although the pains had been of great intensity, the labor had made no progress for more than three days. Dr. C. at once applied the forceps, but the head offering no resistance, they slipped on the first traction made. The head was then punctured, when about $5\frac{1}{2}$ lbs. of fluid escaped. The fœtus was then removed, with strong hæmorrhoidal forceps, fastened through the scalp and cranium. The bones of the cranium were found to be widely separated, and the fœtus enormously hydrocephalic. The fœtus and placenta were both in an advanced state of decomposition, showing the vitality of the child must have terminated at the time, or soon after, the accident to the mother. The placenta had the appearance of having been for a long time detached from the uterus. No hæmorrhage followed its removal. The recovery of the mother was both rapid and complete.

Dr. BROWN gave his experience in the treatment of diphtheria. He had been in the habit of cauterizing in the early stages, afterwards to support the patient with broth, brandy, and quinine.

Dr. MILLER spoke of the great increase in the use of quinine, not only in the doses given, but in the greater range of its application; also of the change, in the type of disease; and inquired whether the increased use of western articles of food—as beef, pork, &c., might not have something to do in giving to diseases of the East, certain characteristics of western diseases. He suggested that some measures be taken to get statistics upon the subject.—(Dr. M. will open the discussion on the use of quinine, at the next meeting.)

The Society adjourned to dine with Dr. Cady.—(No session after dinner.)

CURABILITY OF INSANITY IN INDIA.—In the four native asylums of Bengal, 929 patients were under treatment last year. Of these, 277 were cured or transferred to their friends, and 117 died.—*Brit. Med. Jour.*

 THE BOSTON MEDICAL AND SURGICAL JOURNAL.

 BOSTON: THURSDAY, MARCH 5, 1863.

DR. ARNOLD ON MEDICAL PROVISION FOR RAILROADS.—Railroad accidents constitute so large a proportion of the severe casualties of the present day, that it is somewhat remarkable that no systematic, organized provision has as yet been made in this country for the prompt and efficient relief of their unfortunate victims, by any of our numerous Railroad Corporations. A very little reflection shows how important such a provision is to the sufferer as a means of saving life and limb, and to the corporation as a pecuniary saving. The gross amount of injuries of this kind, when we look over the many railroads traversing our country in every direction, summed up in a statistical form, would present a startling picture of suffering and death, which he hardly realizes whose impressions are based on his own knowledge of individual cases. At the present time, too, when the public sense of horror at the announcement of fearful wounds or sudden deaths from this source is somewhat blunted by our sad familiarity with the bloody havoc of war, it needs some such exhibition to enable us to realize that here, indeed, is a case calling for the most serious consideration and inquiry, whether something may not be efficiently done to efface or greatly to curtail such a terrible record. Doubtless these or similar reflections have crossed the minds of many thoughtful members of the profession at different times, particularly those who have been summoned personally to the relief of the mangled subjects of these disasters, only to feel too acutely how very imperfectly the extemporized arrangements at their command fulfil the desired object. Such experience prompted Dr. Edmund S. F. Arnold, of Yonkers, N. Y., last year to address the Medical Society of that State on this important subject. That address we have read, and have been deeply impressed with its statements and suggestions. We must confess we had not before fully considered how much needless suffering and loss of life there is arising from this source, owing to the want of some systematic preparation to meet such exigencies when they occur. Dr. Arnold has given the whole subject the most careful consideration, turning over in his mind various projects for the desired end, and finally elaborating a plan which strikes us as, in the main, most judicious. Of the necessity of some provision, the statistics which he gives of railroad accidents in his own State are proof enough. These show that in New York alone, during the five years from 1856 to 1860 inclusive, *six hundred and eighty-three persons were killed and six hundred and twenty-four wounded, or thirteen hundred and seven in all injured*—an average of *two hundred and sixty-one per annum*! Of these accidents, an average of one hundred and eighty-eight per annum occurred on five leading roads only, of the thirty lines in the State.

Dr. Arnold draws, from personal experience, a vivid picture of the scene of confusion and suffering which is presented by one of these terrible casualties. The want of proper appliances for dressing the injuries of the wounded, the absence of the commonest comforts to save them from unnecessary suffering, the hurried summoning of any

one claiming the title of doctor—often the veriest quack in the neighborhood—the painful transportation of the wounded over long miles of road to some distant hospital, subjected to needless torture on the way for want of proper accommodation in the cars, the excitement and confusion and horror, all make up a picture which Dr. Arnold presents with all the force of truth, for he draws it from nature and his own observation. To meet such emergencies in such a way as to make the amount of suffering and the loss of life as small as possible, is the object which he has in view. While turning over this subject in his mind, Dr. Arnold was informed that Mr. N. D. Morgan, of Irvington, was engaged in preparing a bill making efficient provision for these cases, to be introduced into the New York Legislature. He cordially adopted the plan of Mr. Morgan, but it unfortunately failed to become a law. Not discouraged, however, he again presented the subject before the surgical section of the New York Academy of Medicine, in October last, giving an abstract of the bill, which is still on file in the State Senate, and which it is to be hoped will yet pass the Legislature of that State. Of this bill Dr. Arnold says:—

“It provides for an association of the railroad companies of the State, the same to be a ‘body corporate,’ managed by a ‘Board of Managers,’ consisting of the Presidents, or such other officers of the associated companies, as may be designated by the respective companies, and the President of the Association, who shall be a citizen of the State of New York, and not an officer of any railroad company.

“The association shall make up a guarantee fund of \$100,000, chargeable upon each road as to its passenger traffic; and to enable the association of railroads to meet casualties, the respective companies shall, in their discretion, be allowed to charge four tenths of a mill per mile to every passenger, or one cent for every twenty-five miles or distance within it, in addition to the usual fare. In return for this, each passenger is guaranteed, in case of death, \$5,000 to his heirs; in case of loss of a limb, or an incurable injury seriously interfering with usual occupations, \$5,000, and for minor injuries \$25 per week, provided that such payments shall not extend over 52 weeks. The association also undertakes to establish surgical stations, at distances of not over ten miles from any one spot, which shall be provided with suitable necessities, and to appoint competent surgeons to attend them when required. This done, the railroad companies are to be exempted from all liability on account of any accident to passengers.

“The bill provides further, that the fund raised by the tax upon passengers, which may be called the ‘Casualty Fund,’ shall be employed for no other purpose than to pay compensations with the necessary expenses of management, and that whatever remains over and above shall accumulate, and when the interest on such accumulation shall amount to a sum equal to the tax of one tenth of a mill, then the tax on the public shall be reduced to three tenths of a mill, and so on until the passenger tax is abolished altogether. The medical provision will be paid for by other means, to be presently mentioned.

“I may here observe that there is one point, on which I differ slightly from the author of the measure. He proposes that surgical stations should not be further than ten miles from any one spot. This would contemplate stations twenty miles apart. I propose that they

should not be more than ten, and that where this is not practicable we should make some provision in the cars. Suppose that two given stations were twenty miles apart and an accident happened five miles beyond one of them, the train could not go back to the nearest one, and it would have to carry the sufferer fifteen miles, often with great delay from intermediate stoppages. Such distance ought to be reduced to a minimum. Ten mile distances absolutely between stations would be far more appropriate, and not involve too great an outlay. The more thorough the provision, the greater the ultimate economy both of life and money.

"To return to the Bill—it provides that on an accident occurring on any road, the company shall be fined to the extent of one third of the amount to which it has rendered the associated fund liable. This fine is to go into a special fund which may be called the 'Reward and Penalty' fund. For instance, if five passengers were killed and others injured so as between them to draw for five thousand more on the casualty fund, and the total thereby made \$30,000, the company, on whose line the accident occurred, would pay \$10,000 into the reward and penalty fund. Thus, while whatever comes from the public will go back to the public, on the other hand the companies are by no means relieved from liability. Owing to the liberal compensations allowed, the penalties would in many cases be greater than that now entailed through the instrumentality of courts of law.

"A clause has likewise been introduced by which, when companies send sufferers to hospitals, and pay usual rates for attendance on the same, such action shall not be held to imply any legal liability for damages on the part of the company. The object of this is as follows:—When a person is injured and sent by the railroad company to an unendowed hospital, it (the company) is willing to pay the same as others for the attendance, but insists that a paper shall be signed by the injured person to the effect that doing so shall not be held as an admission of culpability on its own part. No sooner are such persons in the hospital than they are surrounded by a low class of lawyers, who persuade them not to sign any such paper, and consequently companies are compelled to refuse payment for their own protection. The difficulty is obviated by the above clause.

"Out of the reward and penalty fund, all charges of medical provision and general hospital expenses are to be paid, and at the end of the fiscal year whatever remains over and above is to be redistributed among all the companies pro rata as to their contribution to the casualty fund. Thus, as Mr. Morgan observes, 'rewards and penalties are set forth of the highest importance, as securing care and proper equipment on every road of the association.' Companies not meeting with any accidents will be absolute gainers, while those with whom they occur will foot all the expenses.

"Such are the main provisions of the Bill, and it appears to me that, based, as the measure is, partly upon life insurance principles, partly on purely humane considerations, substantial justice is rendered to every class. While passengers are taxed only to compensate passengers, the companies extend their provision to EVERY class of the injured, and thereby inaugurate a truly great humanitarian institution."

The plan here unfolded, has met with the most cordial sympathy from leading members of the profession in other States, and we sin-

cerely hope such an excellent project may be speedily crowned with success. Other States will not be slow to follow an experiment which promises to do so much for the welfare of the travelling public.

SURGEON GENERAL'S OFFICE,
Washington City, D. C., Feb. 23, 1863.

MESSRS. EDITORS,—I am directed by the Surgeon General, to forward the enclosed circular, with the request that it may be inserted in the pages of the Boston Medical and Surgical Journal.

I have the honor to be, very respectfully,

Your obedient servant, J. H. BRINTON, Surg. U. S. A.

CIRCULAR TO THE MEDICAL PROFESSION.

Surgeon General's Office,
Washington City, D. C., Feb. 20, 1863.

The Surgeon General would remind the medical profession, that some months since a medical officer was detailed by the Department, to prepare the surgical history of the rebellion. It is intended that this history shall embrace, among other topics, the collected results of the gun-shot injuries of the war, and of the operations performed for their relief.

Many facts bearing upon these subjects can be obtained by an examination of the returns of the various military hospitals; and explicit orders have been issued to the surgeons in charge as to the manner of reporting. Yet it is found practically that the results of all cases cannot be included in these reports. In every depot of wounded, and after every action, there exists a large class of injured men, who in various stages of convalescence, pass from the observation and treatment of the military surgeon, and are lost sight of by the medical department. These patients are those who are either furloughed or discharged the service, by military authority, before their treatment is entirely terminated. Under such circumstances, all past records of these cases are rendered valueless from the absence of a positive knowledge of their results.

To remedy this evil, the Surgeon General appeals to the profession of the country, and solicits their coöperation. He would ask every physician and surgeon who may be called upon to treat any officer or soldier wounded in service, carefully to note the results of the case, to record his observations, and, when the case shall have terminated, to transmit a copy of his observations to the Surgeon General's office.

The following form is suggested :—

Date of Communication.

Character of Injury.

Name and address of Physician forwarding it.

	Where wounded and date.	To what hospitals sent.	What Operations, &c. performed.	By whom performed.	Date of Furl. or Discharge.	Pres. condition of Patient, Account, & Treatment. Result.
Patient's Name and Age.						
" Rank.						
" Reg. and Co.						
Postal Address.						

In all cases of recovery after *excisions* of bone, the amount and character of the movements executed by the patient with the injured limb should be accurately described. Where amputation has been practised the character of the stump should be noted, especially when the operation has been performed through an articulation. In cases of compound fracture, the point of fracture should be stated, as also the degree of efficiency of the limb remaining after treatment. In compound fractures of the femur, the amount of shortening should be measured, and the strength and usefulness of the limb described.

In those patients in whom injuries of the skull have occurred, or upon whom the trephine has been applied, the mental and physical conditions should alike be dwelt upon.

In thus placing before the profession the objects he desires to obtain, the Surgeon General trusts that he will meet with active coöperation. By the means above indicated, much information that is valuable may be collected, and the interests of the science of Surgery materially advanced.

W. A. HAMMOND,

Surg. Gen. U. S. A.

Medical Journals will please copy.

WE have been permitted to print the following extract from the records of the Medical Board of the Mass. General Hospital, which will meet with a cordial response from the profession at large.

"The Secretary having mentioned that letters had passed between the Surgical Members of this Board and Dr. Townsend, on occasion of his retiring from a service of twenty-four years, and by unanimous request having read these letters, on motion of Dr. Bowditch, it was unanimously voted, that the sentiments of respect and regard expressed in the letter to Dr. Townsend being entertained by all the members of this body, they gladly avail themselves of this opportunity of putting on record how highly they appreciate the many good qualities so properly set forth in the letter which has just been read, how sorry they are to part with their late associate, and how hearty are their wishes for his future prosperity and happiness."

MASSACHUSETTS MEDICAL COLLEGE.—The Annual Commencement for the conferring of medical degrees will take place at the College on Wednesday, March 11th. The exercises will commence at 11 o'clock, A. M., with a prayer by President Hill, after which graduates will read selections from their dissertations. The degrees will then be conferred by the President, and the whole will conclude with an address by Prof. Henry I. Bowditch.

The Corporation and Board of Overseers of the University will be present on the occasion, and the Fellows of the Massachusetts Medical Society, all medical students, and all persons who may be interested in medical science, are hereby respectfully invited to be present.

D. HUMPHREYS STORER, M.D.,

Dean of the Medical Faculty.

Wednesday, March 5, 1863.

OHIO STATE ASYLUM FOR THE EDUCATION OF IDIOTIC AND IMBECILE YOUTH.—Dr. G. A. Doren is superintendent of this Institution, which was established in 1857, and appears to be steadily growing in useful-

ness. The following extract from the last report indicates the success met with:—

"Fifty-seven children have been under instruction during the year; marked improvement has been observed in all. Aimless and involuntary movements have been replaced by those in response to the will, while the preliminary cultivation of habits of attention, order and obedience, in the school-room and gymnasium, has resulted in productive labor in the garden, shop and sewing-room, as well as in the efficient performance of regular domestic duties.

"Of the whole number under instruction, twenty-eight read and write; twenty-four appreciate, in some degree, the relation and significance of numbers; eleven boys have learned to work in the garden and shop; fifteen girls sew neatly—ten of this number being able to make a garment. They have also been taught to perform appropriate domestic duties."

AMERICAN MEDICAL ASSOCIATION.—An unavoidable delay in the issue of this number of the Journal enables us to insert in it, but without comment, the following official notice, just received:

Office Medical Examiner, Chicago, Feb. 20th, 1863.

The next regular Annual Meeting of the American Medical Association will be held in the City of Chicago, Illinois, on the first Tuesday in June, 1863. Every permanently organized State, County and Local Medical Society is entitled to send one Delegate for every ten members, and one additional Delegate for a fraction of more than half that number. Medical Colleges, and Hospitals containing over 100 beds for the sick, are entitled to two Delegates; and all other permanently organized Medical Institutions are entitled to one Delegate each.

The Committee earnestly desire a full attendance from all parts of the country. By order of the Committee of Arrangements,

N. S. DAVIS, *Chairman.*

VITAL STATISTICS OF BOSTON.

FOR THE WEEK ENDING SATURDAY, FEBRUARY 28th, 1863.

DEATHS.

	Males.	Females.	Total.
Deaths during the week	42	50	92
Ave. mortality of corresponding weeks for ten years, 1853—1863,	41.1	41.0	82.1
Average corrected to increased population	00	00	93.49
Death of persons above 90	1	0	1

Mortality from Prevailing Diseases.

Phthisis.	Croup.	Scar. Fev.	Pneumon.	Variola.	Dysentery.	Typ. Fever.	Diphtheria.
15	9	3	6	0	1	3	2

NOTICE.—The Title-page and Index of Vol. LXVII. will be sent to subscribers with the next number of the Journal.

DIED,—In Randolph, 5th inst., Dr. Ephraim Wales, aged 75.

DEATHS IN BOSTON for the week ending Saturday noon, Feb. 28th, 92. Males, 42—Females, 50.—Accident, 4—anaemia, 1—apoplexy, 1—congestion of the brain, 2—disease of the brain, 2—bronchitis, 2—consumption, 15—convulsions, 5—croup, 9—cynanche tonsillaris, 1—debility, 1—diarrhoea, 1—diphtheria, 2—dropsy, 2—dropsy of the brain, 4—dysentery, 1—erysipelas, 1—scarlet fever, 3—typhoid fever, 3—hæmoptysis, 1—disease of the heart, 3—infantile disease, 6—disease of the liver, 1—congestion of the lungs, 1—disease of the lungs, 1—inflammation of the lungs, 6—marasmus, 1—old age, 2—paralysis, 1—premature birth, 1—rheumatism, 1—tumor (stomach), 1—unknown, 5—whooping cough, 1.

Under 5 years of age, 43—between 5 and 20 years, 10—between 20 and 40 years, 19—between 40 and 60 years, 12—above 60 years, 8. Born in the United States, 72—Ireland, 19—other places, 1.